

PLASMA PROCESSING SYSTEM WITH DYNAMIC GAS DISTRIBUTION CONTROL

ABSTRACT OF THE DISCLOSURE

5 A plasma processing system that includes a plasma processing chamber that
provides enhanced control over an etch process is disclosed. The plasma
processing chamber is connected to a gas flow system. The gas flow system can be
employed to control the release of gases into different regions within the plasma
processing chamber. In addition, the volume of the released gas, e.g., the flow rate
10 of the gas, can be adjusted by a gas flow control mechanism. In this manner, both
the position and the amount of the gas that is delivered to the plasma processing
chamber can be controlled. The ability to adjust the position and the amount of gas
that is released into the plasma processing chamber provides for a better control
over the distribution of the neutral components. This in turn enhances control over
15 the etching process.